



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,412	10/16/2003	Rafael L. Espinoza	1856-34600 (9808.0-02)	2240

31889 7590 10/03/2005

DAVID W. WESTPHAL
CONOCOPHILLIPS COMPANY - I.P. Legal
P.O. BOX 1267
PONONCA CITY, OK 74602-1267

EXAMINER

NGUYEN, CAM N

ART UNIT PAPER NUMBER

1754

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,412

Applicant(s)

ESPINOZA ET AL.

Examiner

Cam N. Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 and 56-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 65-77 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 19-64 is/are rejected.
- 7) ☒ Claim(s) 5-18 & 78 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date originally filed.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicants' amendment and remarks, filed August 29, 2005, has been made of record and entered. Claims 1 & 5 have been amended. Claims 33-55 have been canceled. Claims 56-78 have been added.

Claims 1-32 & 56-78 are currently pending and under consideration.

Response to Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1-32 & the newly added claims 56-78, in the reply filed on August 29, 2005 is acknowledged.

Claim Objections

3. Claim 78 is objected to because of the following informalities:

- A. In line 1, "step (1)" should be changed to --step (a)--.
- B. In line 3, "step (2)" should be changed to --step (b)--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 & 19-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singleton et al., "hereinafter Singleton", (US Pat. 6,740,621 B2) in view of Bauer (US Pat. 4,791,139).

Singleton discloses a cobalt-on-gamma alumina catalyst, which is produced by a method comprising the steps of: (a) calcining a boehmite material at a temperature and for a time effective to convert at least most of the boehmite material to a gamma-alumina support material; (b) treating said gamma-alumina support material with an acidic aqueous solution; and then (c) forming said cobalt-on-gamma-alumina catalyst by depositing cobalt on said gamma-alumina support, etc. (see col. 26, claim 1). The boehmite is calcined in step (a) at a temperature in a range of from about 350°C to about 700°C (see col. 26, claim 8). The boehmite material is spray-dried synthetic boehmite (see col. 26, claim 12).

Singleton does not disclose the claimed average crystallite size of the boehmite support material. However, Bauer fairly discloses the same boehmite support material having the particle size of less than 0.02 microns (which is less than 20 nm) (see Bauer at col. 9, claim 1). Thus, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have substituted the boehmite support material of Bauer for the boehmite support material of Singleton in order to insure better dissolved of the support material with the catalytic material during the contacting step since smaller particle sizes material reacts better compared to the larger particle sizes material.

Claim Rejections - 35 USC § 102(e)/103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 32 & 56-64 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Singleton et al., "hereinafter Singleton", (US Pat. 6,740,621 B2).

Singleton discloses a catalyst containing a catalytic metal supported on an alumina support, thus anticipates the claims.

Product-by-process limitations in the claims is noted. While the catalyst of the reference is not made by the same process, the catalyst made is the same as the claimed catalyst. It is considered the process limitations in the claims have no bearing on the patentability of the product claim itself since it has been held that the patentability of the product and its method of production are separately determined. See, In re

Art Unit: 1754

Thorpe, 227 USPQ 964 (Fed. Cir. 1985); In re Brown, 173 USPQ 688, 688 (CCPA 1977); In re Fessman, 180 USPQ 324, 326 (CCPA 1977). See, also *MPEP* 2113.

Allowable Subject Matter

8. Claims 5-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 65-78 are allowable. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose or fairly suggest a method for forming a catalyst requiring a support material, which comprises a mixture of at least two boehmites with various average crystallite sizes, wherein the average crystallite sizes differ by at least 1 nm as recited in claim 65. There is no motivation to combine the teachings of the references together.

Citations

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared attached.

Art Unit: 1754

Conclusion

11. Claims 1-32 & 56-78 are pending. Claims 1-4 & 19-64 are rejected. Claims 5-18 & 78 are objected. Claims 65-77 are allowed.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M, W, R, & F, 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen/cnn *CNN*
September 29, 2005

Cam N. Nguyen
CAM N. NGUYEN
PRIMARY EXAMINER
Art Unit - 1754